

**REMARKS**

The Office Action mailed June 5, 2003 has been reviewed and carefully considered. Claims 1-17 are pending in this case, claims 1, 3, 7, 12 and 15 being the independent claims. Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

Claims 1-2, 12 and 14 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over U.S. Patent No. 6,148,197 to Bridges et al. ("Bridges") in view of U.S. Patent No. 6,456,839 to Chow et al. ("Chow").

First, as to a procedural matter, the current Office Action withdraws from rejection under this basis claims 7 and 8, which are now rejected below in item 8 based on Bridges, Chow and an additional reference. This appears to have happened in response to the most recent amendment which traversed the Official Notice taken by the Examiner with respect to claims 7 and 8. If the same basis for rejection is being retained, with the new reference serving merely in an evidentiary role, then the new basis for rejection shown below in item 8, i.e. Bridges in view of Chow and Seazholtz, should be withdrawn. In other words, the rejection still is Bridges in view of Chow, with the new reference merely serving as alleged evidence of the well-known statement, so that any other disclosure in the new reference cannot be cited in rejection of claims 7 and 8.

If, on the other hand, a three-reference rejection was intended, as the Office

Action as drafted would suggest, then this constitutes a new basis for rejection and the Examiner must withdraw the finality of the current Office Action.

The instant reply, hereinafter, will assume that the new reference is being used merely as evidence in a two reference rejection.

Now, as to substantive matters, the fundamental misunderstanding of the Examiner regarding the current rejection, i.e., in item 4 of the Office Action, is that lines 20-50 in Bridges relate to the initialization of a single mobile terminal within a purported intelligent roaming system, whereas column 17, line 31 to column 18, line 12 relate to what occurs in the intelligent roaming system when system-wide information is updated.

These two events happen asynchronously (col. 15, lines 35-45), whereas item 2 of the Office Action suggests that the two events occur one after another, in a fixed sequence.

The invention as recited in claim 1 is directed to a home-zone location registering method that includes the steps of “determining, by the portable radio telephone, whether the portable radio telephone deviates from the home zone; and, informing, by the portable radio telephone, to a mobile switching center if the portable radio telephone is deviated from the home zone.”

The Bridges reference fails to disclose or suggest at least the limitation of “informing, by the portable radio telephone, to a mobile switching center if the portable radio telephone is deviated from the home zone” which is explicitly required by the

language of claim 1.

The Office Action suggests that the informing step is found in some combination of FIG. 4, ref. no. 106; col. 12, lines 20-50; col. 17, line 58 to col. 18, line 11, and the examiner's explanatory comment that "routing information" amounts to "informing."

Reference number 6 in FIG. 4 annotates a conventional message switching center, but fails to disclose or suggest "informing, by the portable radio telephone, to a mobile switching center if the portable radio telephone is deviated from the home zone."

Lines 20-50 in column 12 discuss a mobile station determining whether it is located in its home system. If it is located in the home system, the mobile station determines that it will utilize the home wireless carrier, i.e. service provider. If, on the other hand, the mobile station is outside its home system, the mobile station queries if its current carrier is preferred. If so, the mobile station uses its current carrier. If not, the mobile station consults a list of preferred carriers to select a carrier. In this carrier determination process, there is no suggestion or hint of the mobile station communicating with a mobile switching center. Column 12 fails to disclose or suggest "informing, by the portable radio telephone, to a mobile switching center if the portable radio telephone is deviated from the home zone."

Starting on line 58 of column 17 and ending on line 11 of column 18,

Bridges discloses downloading preferred list information to a mobile station (col. 17, line 62: “to the mobile station 68”; col. 18, lines 5-6: “to the mobile station 68”) when the information is updated. There is no disclosure or suggestion of uploading to a mobile switching center or anywhere else and no suggestion of action being taken if there is deviation from the home zone. In particular, this passage fails to disclose or suggest “informing, by the portable radio telephone, to a mobile switching center if the portable radio telephone is deviated from the home zone.”

Moreover, even if it could convincingly be argued that this latter passage discloses or suggests “informing by the portable radio telephone, to a mobile switching center,” this latter passage fails to disclose that such informing occurs “if the portable radio telephone is deviated from the home zone” as explicitly required by the language of claim 1. The mobile station initialization described in column 12, lines 20-50, cannot be relied on to supply this latter, missing limitation, at least because, and as explained above, that initialization is asynchronous with the event of updating system-wide information.

Chow relates to billing for mobile services, but cannot make up for the deficiencies in Bridges. Accordingly, claim 1 is believed to be patentable over Bridges in view of Chow for at least the above-stated reasons. Reconsideration and withdrawal of the rejection is respectfully requested.

As to claim 12, it recites “a location registration message generating section for confirming that the portable radio telephone deviates from the home zone if the sector of the BTS identical to the sector of the currently tuned BTS does not exist in the home-zone list and for generating a location registration message to attempt a location registration to the mobile switching center; and  
a transmitting section for transmitting the generated location registration message to the base transceiver station.”

Bridges fails to disclose deviation confirming based on “sectors of the BTS” as explicitly required by the language of claim 12. Item 4 of the Office Action cites a passage in Bridges which fails to disclose “sectors of the BTS.”

Bridges also fails to disclose “generating a location registration message to attempt a location registration to the mobile switching center; and a transmitting section for transmitting the generated location registration message to the base transceiver station” as explicitly required by the language of claim 12. Claim 12 is believed to be patentable over the cited prior art for at least these reasons.

Claims 2 and 14 depend from base claims 1 and 12, respectively, and are likewise deemed to be patentable for at least the same reasons.

Claims 3-6 were rejected under 35 U.S.C. 103(a) as unpatentable over Bridges in view of Chow and U.S. Patent No. 5,642,398 to Tiedermann, Jr. et al.

("Tiedermann").

As to claim 3, it recites a method for a mobile switching center that includes the steps of:

“checking whether a location registration request is received from a portable radio telephone;

if the location registration request is received, checking whether the portable radio telephone deviates from the home zone by checking whether the current position of the portable radio telephone is included in a home-zone list . . .”

Item 5 of the Office Action suggests that “modified Bridges” discloses these limitations and then cites Chow as disclosing them in column 8, lines 39-65. Chow states “Based on the user’s current location information, the network determines the preferred service profile for the user (col. 8, lines 50-51). Chow does not disclose a location registration request, a home-zone list or checking the list if the request is received. Tiedermann discloses a mobile station registration method, but fails to make up for the deficiencies in Bridges and Chow. Claim 3 is therefore believed to be patentable over the applied prior art for at least this reason.

As to claims 4-6, they depend from base claim 3 and are likewise deemed to be patentable for at least this reason.

Claims 13 and 15-16 were rejected under 35 U.S.C. 103(a) as unpatentable

over Bridges in view of Chow, Tiedermann and U.S. Patent No. 6,321,090 to Soliman (“Soliman”).

Claim 15 recites “a location registration message generating section for confirming that the portable radio telephone deviates from the home zone if the pseudo noise code identical to the detected pseudo noise code does not exist in the home-zone list and for generating a location registration message to attempt a location registration to the mobile switching center; and, a transmitting section for transmitting the generated location registration message to the base transceiver station.”

Bridges fails to disclose deviation confirming based on a “pseudo noise code of a currently tuned BTS” as explicitly required by the language of claim 12. Item 6 of the Office Action suggests that Soliman discloses pseudo noise codes in lines 24-30 of column 15. However, that passage talks about a base station using pseudo ranges of satellites currently within the vicinity of the base station to determine the location of a mobile station, but neither discloses nor suggests using pseudo noise codes of a currently tuned base transceiver station to determine the mobile station location. It would not have been obvious to use PN codes of the currently tuned base station, based on Soliman, because the BTS’s are in a fixed configuration, unlike the satellites.

Bridges also fails to disclose “generating a location registration message to attempt a location registration to the mobile switching center; and a transmitting

section for transmitting the generated location registration message to the base transceiver station” as explicitly required by the language of claim 15. None of the references cited in the combination can compensate for the above-noted deficiencies. Claim 15 is believed to be patentable over the cited prior art for at least these reasons.

As to claim 16, it depends from base claim 15 and is likewise deemed to be patentable for at least the same reasons.

Regarding claim 13, it depends from base claim 12, which has been shown to be patentable. Tiedemann and Soliman cannot compensate for the deficiencies in Bridges and Chow. Claim 13 is deemed to be patentable for at least the same reasons as claim 12.

Claim 17 was rejected under 35 U.S.C. 103(a) as unpatentable over Bridges in view of Chow, Soliman and van der Salm.

Claim 17 depends from claim 15, which has been shown to be patentable. Van der Salm cannot make up for the deficiencies in Chow and Soliman. Claim 17 is likewise patentable for at least the same reasons as is claim 15.

Claims 7-10 were rejected under 35 U.S.C. 103(a) as unpatentable over Bridges in view of Chow, using U.S. Patent No. 6,128,489 to Seaholtz et al. (“Seaholtz”) as an evidentiary reference for a well-known statement.

Claim 7 recites a “home-zone location registering apparatus . . .



comprising:

a memory for storing a home-zone list;

a receiving section for receiving a predetermined signal from a base transceiver station (BTS);

a comparing section for checking whether the portable radio telephone deviates from the home zone by comparing the predetermined signal from the BTS with the home-zone list stored in memory;

a location registration message generating section coupled to the comparing section for generating a location registration message to attempt a location registration to the mobile switching center when the BTS information is not included in the home-zone list;

a transmitting section for transmitting the generated location registration message from the location registration message generating section to the BTS.”

As discussed above with regard to the rejection of claim 1, neither Bridges nor Chow, alone or in combination, disclose or suggest the informing step. It follows that these references also fail to disclose or suggest the location registration message generating section of claim 7.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be

considered in judging the patentability of that claim against the prior art."  
*In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA  
1970) MPEP 2143.03

The prior art of record fails to teach or suggest all of the limitations of claim 7. In particular, the prior art fails to disclose or suggest "a location registration message generating section coupled to the comparing section for generating a location registration message to attempt a location registration to the mobile switching center when the BTS information is not included in the home-zone list." Accordingly, claim 7 is believed to be patentable over the prior art of record for at least this reason.

Claim 11 was rejected under 35 U.S.C. 103(a) as unpatentable over Bridges in view of Chow and U.S. Patent No. 6,345,184 to van der Salm et al. ("van der Salm").

Claim 11 depends from claim 7. Van der Salm discloses a system for providing services to a roaming telecommunications user, but cannot make up for the deficiencies in Bridges and Chow. Accordingly, claim 11 is believed to be patentable over the applied references for at least this reason.

In view of the foregoing amendments and remarks, it is believed that this application is now in condition for allowance. The Examiner is invited to contact the undersigned in the event of any perceived outstanding issues so that passage of the case to issue can be effected without the need for a further Office Action.

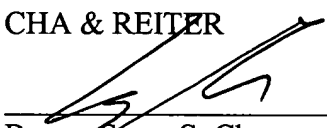
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In the event that any additional fee is required to continue the prosecution of this Application as requested, please charge such fee to Deposit Account No. 502-470.

Respectfully submitted,

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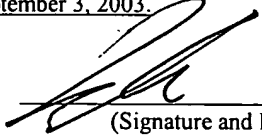
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